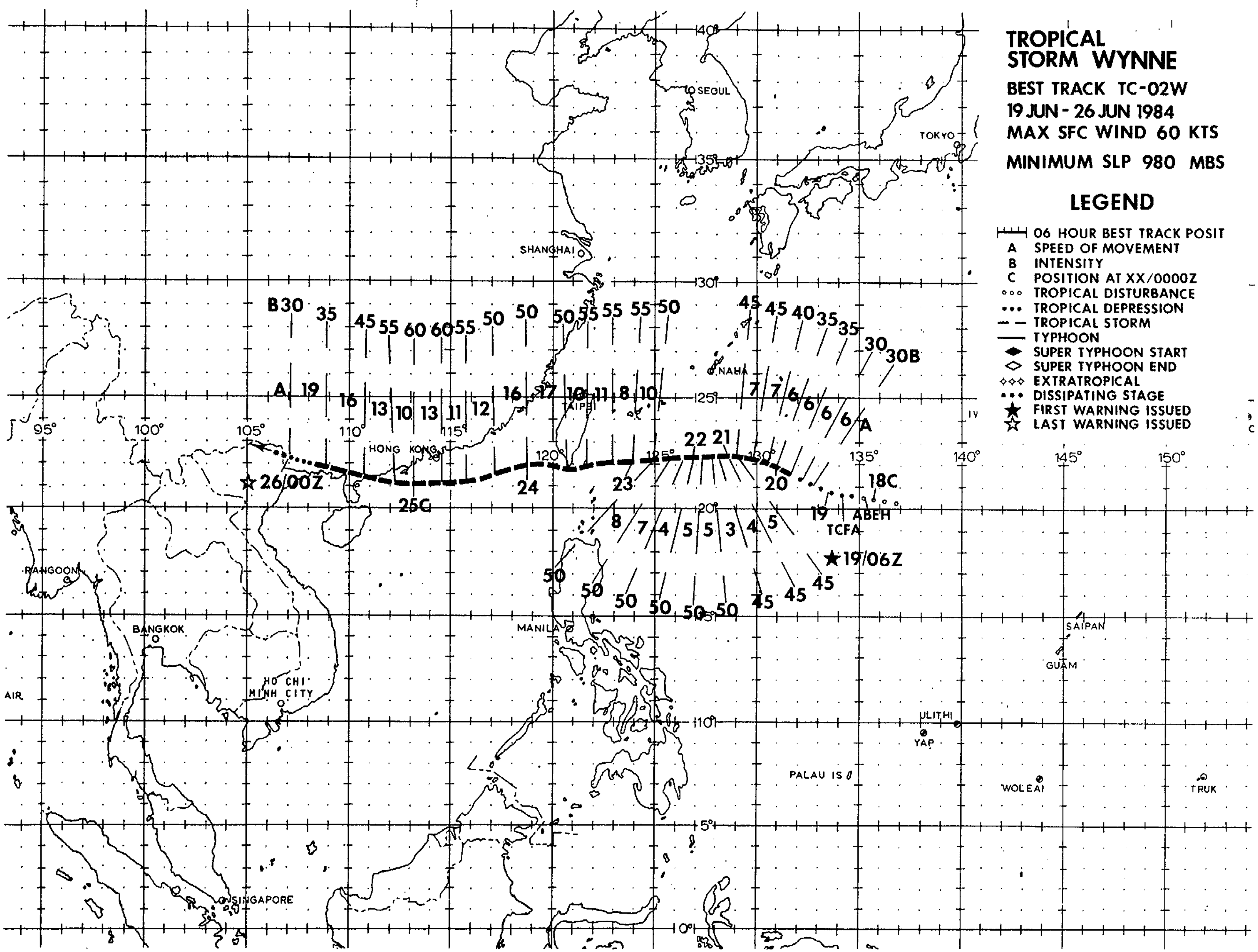
TROPICAL STORM WYNNE
BEST TRACK TC-02W
19 JUN - 26 JUN 1984
MAX SFC WIND 60 KTS
MINIMUM SLP 980 MBS
LEGEND
06 HOUR BEST TRACK POSIT
A SPEED OF MOVEMENT
B INTENSITY
C POSITION AT XX/0000Z
TROPICAL DISTURBANCE
TROPICAL DEPRESSION
TROPICAL STORM
TYPHOON
SUPER TYPHOON START
SUPER TYPHOON END
EXTRATROPICAL
DISSIPATING STAGE
FIRST WARNING ISSUED
LAST WARNING ISSUED
SEOUL
TOKYO
SHANGHAI
NAHA
TAIPEI
HONG KONG
MANILA
RANGOON
BANGKOK
HO CHI MINH CITY
SINGAPORE
SAIPAN
GUAM
ULITHI
YAP
PALAU IS
WOLEAI
TRUK
★19/06Z
☆26/00Z
TCFA
ABEH
18C
25C
B30
30B
A

After Tropical Storm Vernon (01W) dissipated over Vietnam, the southwest monsoon was slow to re-establish itself. Surface ridging from an anticyclone over the northern Philippine Sea and later from a 1030 mb high east of Japan kept easterlies in the Philippine Sea and across Luzon until the 14th of June. By then the ridge east of Japan had moved far enough east to allow a weak southwest monsoon to become established from the South China Sea eastward into the Philippine Sea. This set the stage for the development of Tropical Storm Wynne.

The disturbance which developed into the second storm of the season was first detected late on 16 June in the northern Philippine Sea as an area of concentrated convection embedded in the southwest monsoon. By 17 June a broad, weak surface circulation had developed near 20N 137E with an MSLP of 1005 mb and 10 to 20 kt (5 to 10 m/s) surface winds. The organization of the convection continued to improve, prompting the issuance of a TCFA at 1600Z on the 18th. At that time, synoptic data indicated a weak upper-level anticyclone had developed aloft providing good outflow to the south and west. Late on the 18th, the first aircraft reconnaissance flight into the disturbance found a 6 nm (11 km) wide surface center with an MSLP of 998 mb and maximum surface winds of 20 kt (10 m/s). At 190933Z the first warning on Wynne, valid at 190600Z, was issued.

Wynne maintained a predominantly westward track throughout its life. The storm was steered by the westward flow along the southern side of the mid to low-level subtropical ridge. This ridge was apparently too narrow to be resolved by JTWC's primary forecast aid, the One-Way Interactive Tropical Cyclone Model (OTCM). As a result, OTCM repeatedly predicted a northward track for the storm. By the second warning, JTWC forecasters had noticed this apparent problem with OTCM and began forecasting a more westward track than OTCM indicated.

On 19 June a mid-latitude trough passed to the north of Wynne causing Wynne to turn briefly to the northwest. However, the trough did not weaken the subtropical ridge enough to allow for recurvature. After the trough passed on the 20th, Wynne once again resumed its westward heading which it maintained until landfall.

Despite the five days Wynne remained in the Philippine Sea east of Taiwan, it did not intensify beyond 55 kt (28 m/s). The weak upper-level anticyclone which developed over Wynne on the 18th remained very small, being overshadowed by a much larger upper-level anticyclone to the north over mainland China. Therefore, Wynne remained under a strong shearing environment from the north and northeast throughout its life, which hindered intensification.

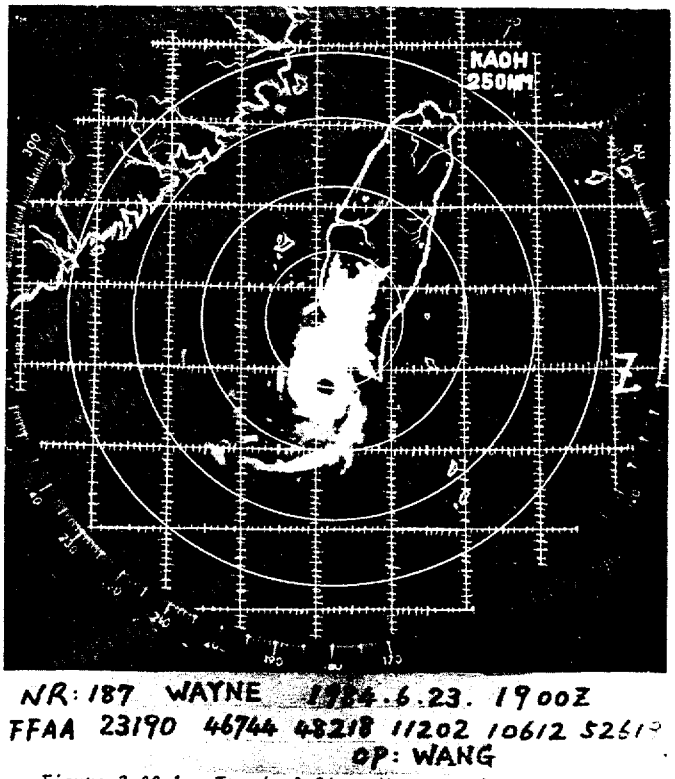

Figure 3-02-1. Tropical Storm Wynne as it passed south of Taiwan as seen by radar from Kaohsuing (WMO 46744) at 231900Z June (Photograph courtesy of Central Weather Bureau, Taipei, Taiwan).

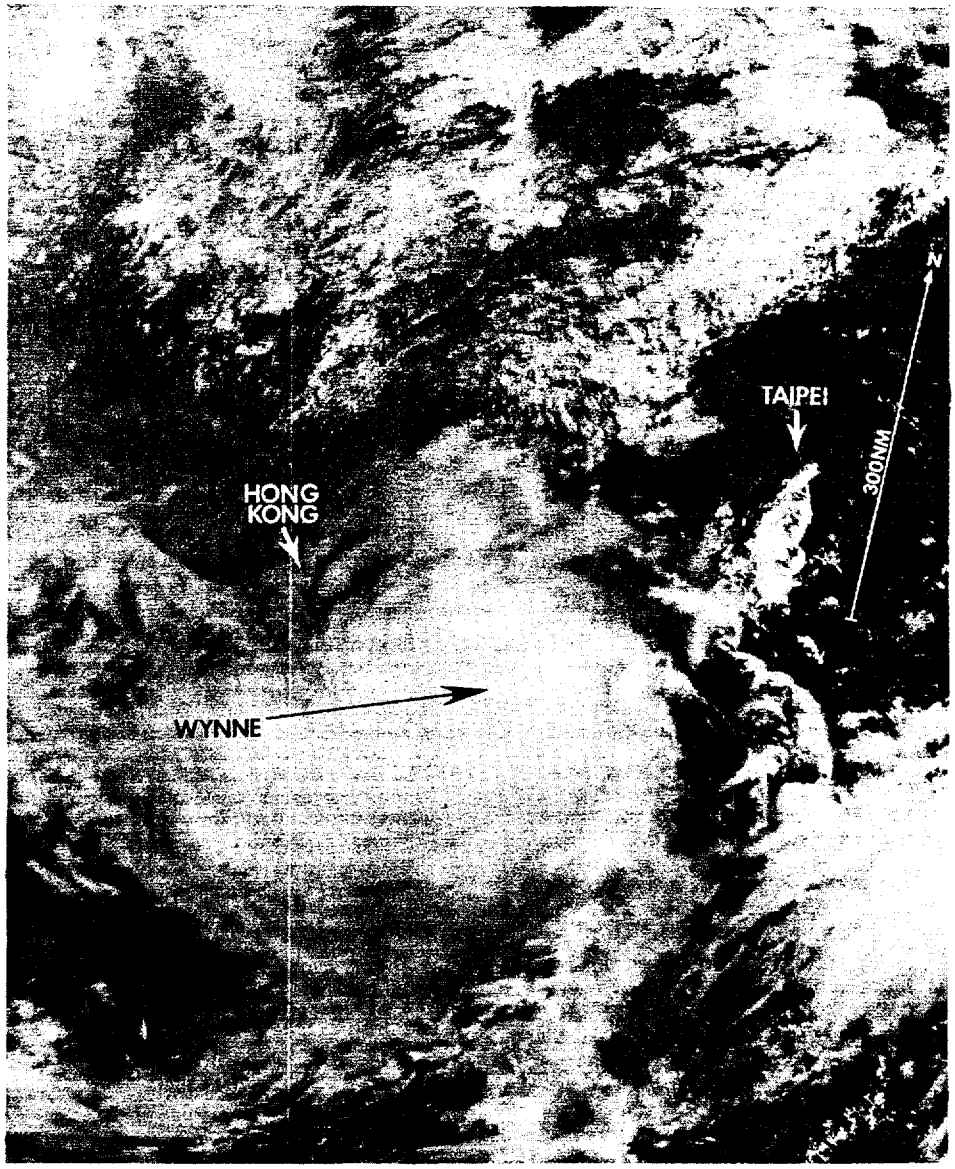

Figure 3-02-2. Wynne as a 50 kt (26 m/s) tropical storm entering the south China Sea (240136Z June DMSP visual imagery).

Wynne strengthened to 55 kt (28 m/s) just prior to passing the southern coast of Taiwan. The sea level pressure of Lanyu (WMO 46762), located just east of the southern tip of Taiwan, dropped 14 mb in the 12 hours preceeding the storm's arrival, reaching 984 mb with Wynne's passage. As Wynne passed the southern tip of Taiwan (Figure 3-02-1), its low-level circulation was disrupted causing Wynne to weaken slightly as it entered the South China Sea (Figure 3-02-2).

Wynne passed 70 nm (130 km) south of Hong Kong (WMO 45005) about 24 hours after passing the southern tip of Taiwan. By this time Wynne had intensified to its peak intensity of 60 kt (31 m/s). This was confirmed by the USS Mauna Kea (AE22) which inadvertently passed very close to Wynne's center and reported "maximum winds to 60 kt, gusts to 70 kt." Fortunately, no damage or personnel injuries were reported aboard the Mauna Kea. Further north, Hong Kong reported gusts to 60 kt (31 m/s) with the passage of Wynne.

As Wynne traversed the Philippine Sea and the northern Luzon Straits, the southwest monsoon was enhanced producing 20 to 30 kt (10 to 15 m/s) winds, high seas and heavy rainfall. In Luzon, at least 20 families were reported left homeless and 10,000 hectares of riceland destroyed by floods. North of Luzon, three fishermen drowned when their boats capsized in heavy seas.

Tropical Storm Wynne made landfall at approximately 1200Z on the 25th on the coast of the People's Republic of China near the Luichow Peninsula, and weakened rapidly as it moved inland. The final warning on Wynne was issued at 0000Z on the 26th.